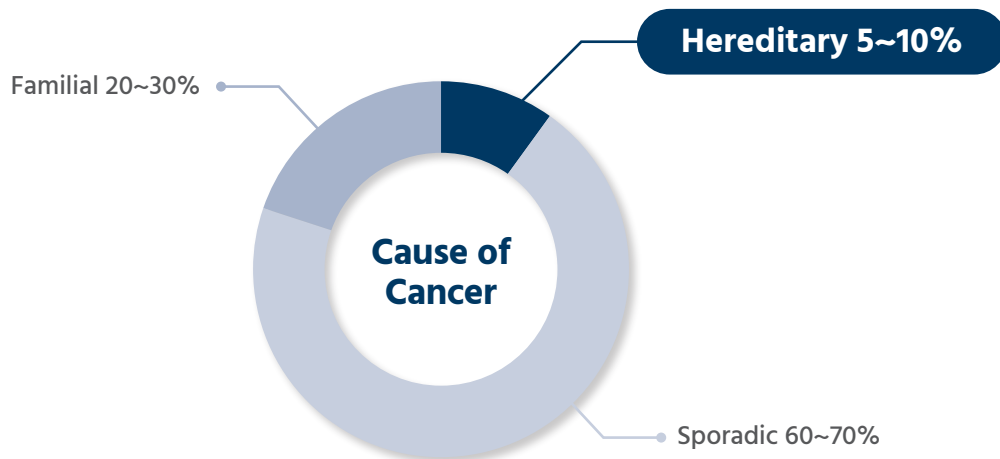


Hereditary Cancer ¹²



Cancer has a multifactorial origin, with genetic, environmental, medical, and lifestyle factors all playing a role. **Approximately 5-10% of cancers are associated with inherited gene mutations that are present from birth.** These mutations increase an individual's susceptibility to developing cancer.

Hereditary Cancer Panel using blood samples can identify these gene mutations responsible for hereditary forms of cancer by NGS method. By undergoing genetic testing for hereditary cancer syndromes, healthcare professionals can make more informed decisions about clinical management and cancer surveillance. This type of testing also provides an opportunity to reduce the risk of cancer through appropriate interventions and procedures.

Why should you take hereditary cancer panel test?



1. Early Detection

Hereditary cancer panel testing helps identify genetic variants related to cancer, enabling early detection through the implementation of screening and prevention strategies.



2. Personalized Risk Assessment

Hereditary cancer panel testing offers personalized insight into your hereditary cancer risk, empowering you to make informed choices regarding lifestyle, screenings, and interventions for risk reduction.



3. Family Health Insights

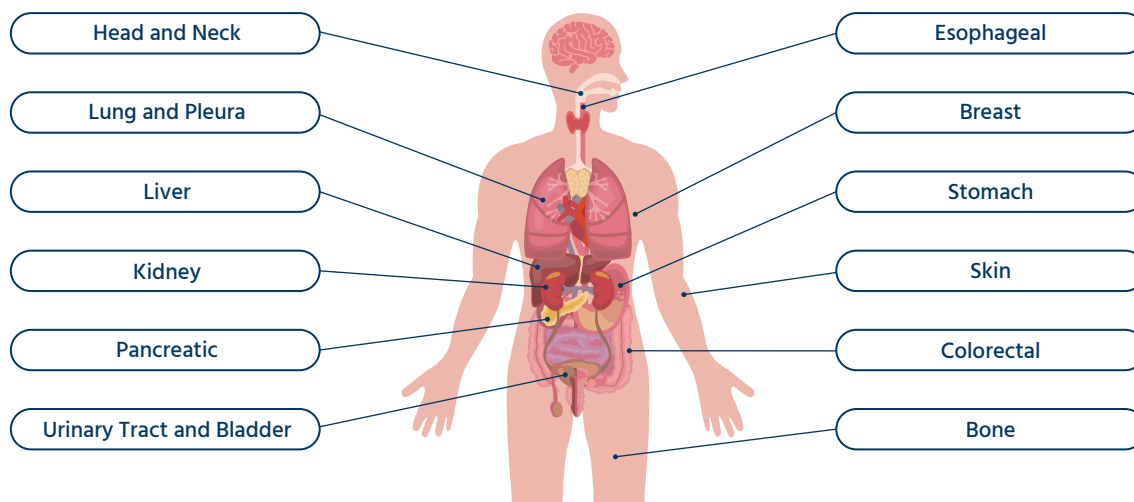
Hereditary cancer panel testing reveals inherited genetic variants that may impact other family members, enabling you to inform and encourage them to undergo testing and manage their cancer risks proactively.

¹ National Cancer Institute : <https://www.cancer.gov/about-cancer/causes-prevention/genetics/genetic-testing-fact-sheet#does-someone-who-inherits-a-cancer-susceptibility-variant-always-get-cancer>

² Fight Colorectal Cancer : <https://fightcolorectalcaner.org/about-colorectal-cancer/general-information/genetics>

Competitive Advantages

This test is composed of panel with highly penetrant genes associated with **23 hereditary cancers**.



Reproductive System

- Breast
- Ovary
- Uterine
- Prostate
- Cervix

Digestive System

- Stomach
- Colorectal
- Small Intestines
- Esophagus
- Pancreas
- Liver

Urinary System

- Urinary Tract and Bladder
- Kidneys

Other Systems

- Lung and Pleura
- Skin
- Bone
- Thyroid Gland
- Soft Tissue
- Miscellaneous Endocrine Glands
- Blood
- Head and Neck
- Central Nervous System
- Peripheral Nervous System

Service features

Test	Hereditary Cancer Panel	Code	ON040
Specimen	EDTA WB 3 ml	TAT	12 days
Method	NGS (Next Generation Sequencing)	Sample Storage	Room temperature (Refrigerated is recommended.)

Test description

This panel provides comprehensive analysis of the genetic variants that cause hereditary cancer with 98 relevant genes across 23 cancer types. Anyone with personal or family history of cancer is recommended to take this test for the diagnosis of the probability of incidence of hereditary cancer.

Caution & Limitation

- The genes included in the test include the entire exon, but in some areas sequencing may not be sufficiently covered.
- If a highly homologous sequence exists, the sequencing of the base may not be accurate, and exonic deletion/duplication, regulatory or deep intronic region, repeat expansion, imprinting defect etc. may be difficult to detect.
- Genetic variation is divided into five categories, pathogenic variant (PV), likely pathogenic variant (LPV), variant of unknown significance (VUS), likely benign variant (LBV), and benign variant (BV), according to 2015 ACMG/AMP (Genet Med 2015;17:405-24).
- Likely benign variant (LBV) and Benign variant (BV) are not reported. However, the interpretation of the variation could be changed as additional evidence builds up after the results are reported.
- Hereditary factors may increase the risk of developing certain types of cancer, they do not guarantee that an individual will develop cancer.